

7 July 2022

locustec.com

HEADQUARTERS:  
SILICON VALLEY

779 Fairchild Drive  
Foster City, CA 94404  
Tel: 650-997-1400  
Fax: 650-350-9880  
Email: info@locustec.com

SAN FRANCISCO

LOS ANGELES

ASHEVILLE

BOSTON

Lilian Abreu  
Remedial Project Manager  
U.S. Environmental Protection Agency  
Region 9  
75 Hawthorne Street (SFD-7-1)  
San Francisco, CA 94105

*RE: Response to EPA Comments Received 16 June - 1 July 2022 Regarding the Building Specific Work Plan Addendum, 811 East Arques Ave, Sunnyvale, California, 8 June 2022*

*CERCLIS Site CAD070466479*

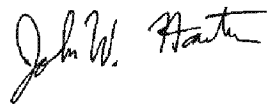
Dear Ms. Abreu:

This letter is submitted on behalf of Philips Semiconductors Inc (Philips) in response to the EPA comments received on 16 June - 1 July 2022 in regards to the *Revised Building Specific Work Plan Addendum (BSA), 811 East Arques Ave, Sunnyvale, California* submitted 8 June 2022. The EPA comments were transmitted via emails and were specifically about Table 4. On a 1 July 2022 call with the EPA, the Table 4 comments were resolved and it was requested that Table 4 be resubmitted along with revised accompanying text, if applicable. Table 4 and the revised text, in track changes, is attached electronically. A pdf of the entire revised report has been also resubmitted.

The response to comments table has been updated and is included in this cover letter.

If you have any questions regarding this correspondence, please call me at (415) 799-9937.

Sincerely,

A handwritten signature in black ink that reads 'J. Wesley Hawthorne'.

J. Wesley Hawthorne, PE, PG  
President

JWH/ae/at

Cc (email): Shau-Luen Barker, Philips Semiconductors

EPA Comments – 19 April 2022	Locus Response – 8 June 2022	EPA Comments – 16 June–1 July 2022	Locus Response – 7 July 2022
1. Contaminant volatilizing from a groundwater source migrates in all directions in the vadose zone including areas that are hydraulically upgradient. According to that, the following statement on Section 2.2, page 14, should be revised for accuracy: <i>“Higher concentrations of TCE are located at the north end of the Property near the historical source, however because the current building is hydraulically upgradient of this area, those concentrations are not expected to impact VI levels in the building”.</i>	The Section 2.2 text has been revised to add distance between source area (the mound) and the building (approximately 300 feet). The text has also been revised from “not expected to impact VI levels...” to “concentrations are expected to have limited impact on VI levels...”		
2. Section 3.3. page 17. It is indicated that the building foundation was constructed with a moisture barrier under the concrete slab. Clarify if the subslab implants installation could break through this barrier and how that could be affected or repaired.	Comment #2 has been addressed in Section 5 (Sampling Plan). It has been acknowledged that the subslab vapor pin implants will penetrate the slab and moisture barrier. The SOP will describe potential repairs when the vapor pins are decommissioned (see related comment #5a).		

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3. Section 3.5.1. page 17. Include a description of the sewer and its depth below ground. Discuss if it is expected that the sewer line could be below the water table at any location across the site.	The requested description has been added. Based on City of Sunnyvale utility maps, the sewer line is expected to below water table where the property and City sewer intersect.		
4. Section 4.2.2, page 23. include unsealed utility penetrations, floor drains and impacted sewer lines as potential migration pathways	Section 4.2.2 has been revised as suggested.		
5. Section 5. page 27 a. Include in the main text a summary description of subslab installation and sampling procedures and attached to the document the SOPs for these procedures. Sampling flow rate should not exceed 200 mL/min. Leak test using a shroud and a tracer gas	5a. The main text in Section 5 has been revised as suggested. SOPs have also been added to the Appendix.		

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<p>b. Replace the six-liter summa canister by 1 liter summa canister (or lower volume). It is recommended to use smaller volumes for canisters as the sampling flow rate should not exceed 200 ml/min and a leak test using a shroud should be performed. Large volume canisters should be avoided as it would imply long time for sampling based on the recommended flow rate.</p> <p>c. Table 3 presents “indoor air quality evaluation criteria”, since this report is about subsurface sampling, replace that table or include another table for the evaluation criteria of the subsurface soil gas. EPA recommends using the VISL (vapor intrusion screening levels) for screening purpose and to define laboratory detection limits and associated QA/QC relative to soil gas.</p>	<p>5b. One-liter summa canisters will be used as suggested. The Section 5 text has been revised accordingly.</p> <p>5c. A second sampling event has been added and the Section 5 text revised accordingly.</p>		

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<p>d. Table 3 presents “indoor air quality evaluation criteria”, since this report is about subsurface sampling, replace that table or include another table for the evaluation criteria of the subsurface soil gas. EPA recommends using the VISL (vapor intrusion screening levels) for screening purpose and to define laboratory detection limits and associated QA/QC relative to soil gas.</p> <p>e. Include five additional subslab sampling locations as indicated by the red stars in slide 4 of the pdf file attached. Two locations on the north side that is closest to the source area. Two locations on the west side for spatial coverage. The fifth additional subslab location should be in the women restroom not identified in the layout figure provided.</p>	<p>5d. The EPA VISL calculator was used to update Table 4 for soil gas.</p> <p>5e. Five additional subslab sampling vapor pins will be added as suggested. The Section 5 text has been revised accordingly.</p>	<p>5d. See emails dated 16 June, 27 June (3 emails), and 1 July.</p>	<p>5d. Table 4 has been updated as suggested by the EPA. Rather than using the calculator, an attenuation factor was applied to the established indoor air criteria as noted in Table 4. Section 5.4 text has also been revised. All criteria are screening values.</p> <p>5e. Although EPA did not comment, an additional note on 5e is provided herein for clarification on the response. During a site walk conducted in May 2022, it was noted that tile inside the women’s restroom could be difficult to repair. Thus the vapor pin will be placed just north of the restroom and is expected to be representative of the women’s restroom. The text in Section 5.1 already reflects this location and did not need to be updated during this submittal.</p>

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<p>f. Include the collection of a grab sample from each of floor drains observed in the janitor closet and men/women restrooms</p> <p>g. If sewer is expected to be below water table across the site, include collection of a grab sample from a sewer cleanout.</p> <p>h. Please indicate the north direction in each figure provided in the report, particularly if they are not oriented to the same direction.</p>	<p>5f. Locus is concerned that grab samples from the floor drain may draw ambient air that may be impacted by other sources in the building, making results difficult to interpret. The stated floor drains discharge to a 4" waste line that has multiple clean outs. It is proposed to sample an outdoor sewer cleanout in lieu of indoor grab samples (see related comment 5g).</p> <p>5g. Because the main sewer is expected to be below water table and the Property lateral could be a migration pathway, a grab sample from a sewer line cleanout will be collected. Ideally, a cleanout outside the building will be used, however the location is subject to Lowe's approval.</p> <p>5h. The figures were revised as suggested.</p>		